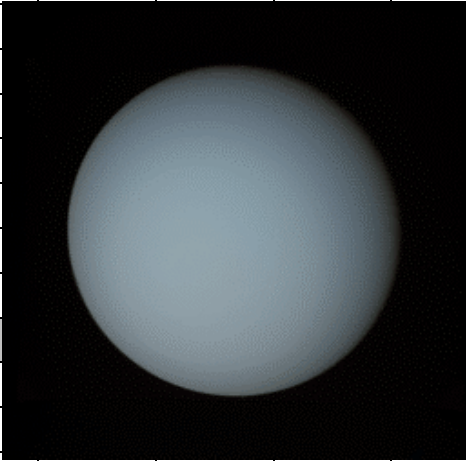
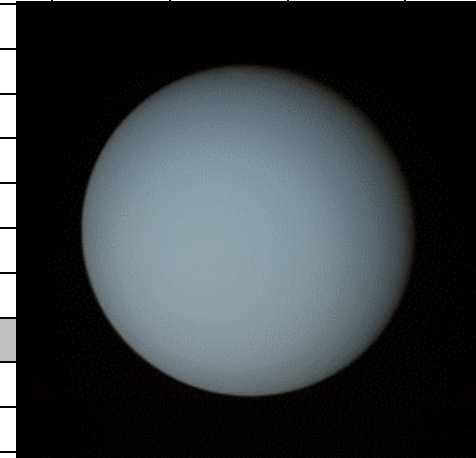
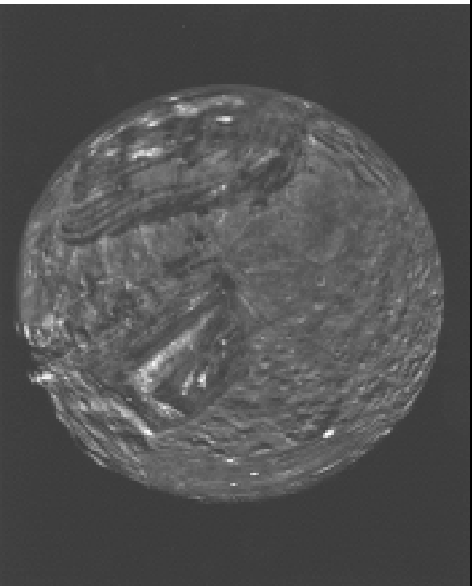


Fast Facts About Uranus

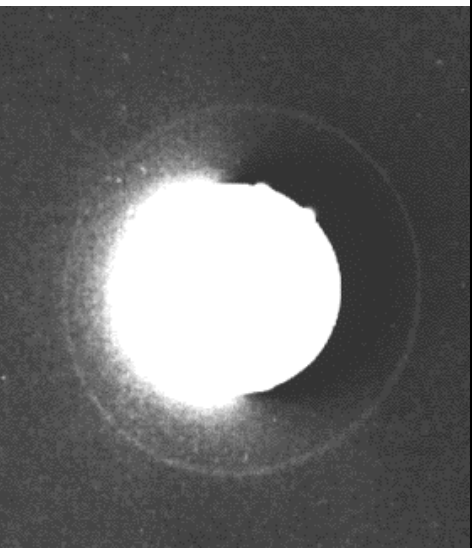
Planetary Parameters		Ratio (Uranus/Earth)									
Planet Type	Gas Giant (unlike a solid, rocky planet like Earth)										
Average Distance from Sun (kilometer)	2,870,990,000 compared to Earth's 149,600,000	19.19									
Equatorial Diameter (kilometer)	51,118 as compared to Earth's 12,756	4.01									
Mass (10 ²⁴ kilogram)	86.83 as compared to Earth's 5.9736	14.54									
Volume (10 ¹⁰ kilometer ³)	6,833 as compared to Earth's 108.321	63.08									
Average Density (gram/centimeter ³)	1.318 as compared to Earth's 5.52	0.24									
Surface Gravity (meter/second ²)	8.69 as compared to Earth's 9.78	0.89									
Magnetic Field (gauss-Rh ³)	0.228 as compared to Earth's 0.3076	0.74									
Orbital Parameters											
Year Length (One Orbit Around the Sun)	84.01 Earth years										
Day Length (One Rotation on its Axis)	17.24 Earth hours										
Inclination of Axis (degrees)	97.86 compared to Earth's 23.45										
Atmosphere and Climate											
Average Surface Temperature (C)	-195 at one bar as compared to Earth's 14.8										
Maximum Temperature (C)											
Minimum Temperature (C)	-215 at one bar as compared to Earth's -33										
Atmospheric Pressure at Surface	Greater than 100 bars (Earth = 1 bar) This pressure exerts a force of 0.42 kg/m ³ at 1 bar compared to Earth's atmosphere which exerts a force of 1.217 kg/m ³ at 1 bar (sea										
Major Atmospheric Gasses	82.5 % Hydrogen, 15.2% Helium, 2.3% Methane										
Summary of Water	There is no liquid water or water vapor										
Planetary Features											
General Overview	Uranus is a blue-greenish ball of gas. Voyager measured winds up to 200 meters per second. Uranus' spin axis is tipped almost 90 degrees from the normal orientation of planets in the solar system. Its magnetic field is not centered on its spin axis.										
Core Composition											
Known Moons/Rings	All the moons are made primarily of water ice. Four of them are over 1,000 km, one is about 500 km, and 10 are below 150 km. Uranus has 11 thin, widely spaced, dark-colored rings, fewer than half of which have circular orbits.										
Visits to Uranus											
1950-99	1986: Voyager 2 (US), flyby, discovers 10 small moons and two more rings. Detected magnetic field and length of Uranian day.										



Some Views of the Planet Uranus



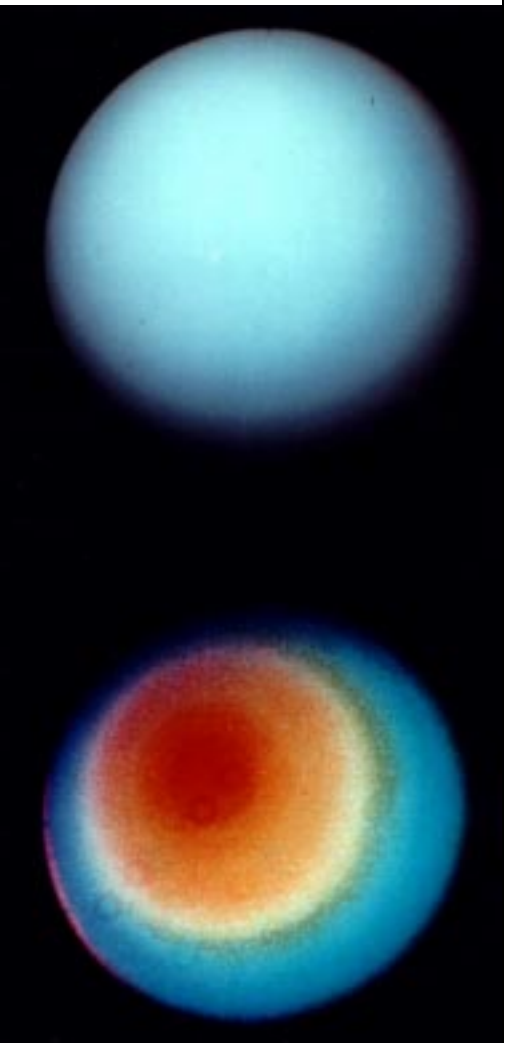
1) Miranda, one of Uranus's 15 moons. Do the terrestrial or gaseous planets have more moons?



2) Until Voyager 2 flew past in 1986, nobody knew that Uranus had rings. How are the planets with rings similar?



3) This grainy image was assembled from several smaller images. How many of Uranus's 11 rings can you see?



4) Uranus is primarily hydrogen gas, similar to the other gaseous planets. Uranus is 2.3% methane, a gas that absorbs red light. As a result, Uranus looks blue. Uranus has few visible atmospheric features and lacks any significant internal heat source. An odd feature about Uranus is that it is tipped on its side so, unlike all the other planets, its axis of rotation is in the same plane as its orbital plane. This means that in winter, the North Pole points directly at the sun, and in summer the South Pole points directly at the sun. Since it takes Uranus 84 years to orbit the sun, winter and summer each last 21 years!